

REMARKS

Applicant, his principal representatives in Germany, and the undersigned have carefully reviewed the first Office Action on the merits of August 23, 2007, together with the prior art reference cited and relied on in the rejections of the claims. In response, the title, Substitute Specification, and claims of the application have been amended. It is believed that the claims now pending in the application are patentable over the prior art cited and relied on. Reexamination and reconsideration of the application, and allowance of the claims is respectfully requested.

The title of the application is being amended to change the term "PACKING" to "DRESSINGS". The term "dressings" is believed to be more typically used as a descriptor of removable coverings which are attached to cylinders. This change does not introduce any new matter.

In the course of the preparation of this Amendment, the Substitute Specification was reviewed. Several minor typographical errors were noted in the course of that review. Those typographical errors are being corrected by the revisions made to the Substitute Specification. Those various changes and corrections do not constitute any new matter.

The subject invention, as recited in currently pending claims 27-38, is directed to a method for mounting a dressing on a printing cylinder. The dressing itself is depicted in Fig. 1 and is generally conventional in shape and structure. As may be seen in Fig. 1 and also in Fig. 2, the dressing 01 has a leading end 03 and a trailing end 04. Each of these ends has a beveled or angled suspension leg. The dressing is intended to be attached to a cylinder 06 which is rotatable in a production direction P, as indicated by the arrow which is also depicted in Fig. 2. At least one dressing end receiving opening, generally at 09, is provided in the surface of the cylinder 06. This dressing end receiving opening includes a first, leading edge 16 and a second, trailing edge 17.

In accordance with the present invention, as recited in currently amended claim 27, and as described and discussed in the Substitute Specification, and particularly at paragraphs 026 and 027 thereof, the attachment of the beveled leading suspension leg of the dressing in the cylinder gap and its engagement with the gap's leading end, is accomplished using the weight of the plate end. No biasing force, such as a resilient force generated by the inherently elastic plate, as a result of the imparting to the plate of a bend or deformation, is required. No roller or other force imparting element is required. The radial force which acts to cause the beveled dressing leading end to fall into the cylinder gap and to become engaged by the gap's leading edge, is the gravitational force which is a function of the weight of the dressing leading end. It is to be noted that the lengthy specification of the subject application, and the multiple drawings describe and depict several embodiments of methods and devices for the attachment of dressings to a cylinder. The portion of the Substitute Specification which is the most relevant to the subject invention is the portion thereof referred to above; i.e. paragraphs 026 and 027.

In the Office Action of August 23, 2007, claims 27-38, all of the claims now pending in the application, were rejected under 35 USC 103(a) as being unpatentable over U.S. patent No. 5,758,579 to Marmin et al. It was acknowledged, in the detailed discussion of the rejection, that Marmin et al. "...do not teach to cause the leading end of the dressing to fall into the opening while imparting no elastic prestress on said leading end in response to a force of a weight of said dressing acting on said dressing leading end as recited." (Emphasis added.) It was then asserted that, in direct contradiction to the teaching of Marmin "...that when the leading end 28' of the dressing B is placed resting on the cylinder surface as shown in Fig. 8, even without any external force to pull the dressing down toward the cylinder surface, gravitational force acting on the dressing B would pull the leading end 28' of the dressing B down against the cylinder surface." While the applicant does not claim to have discovered the force of gravity, he does claim that his use of that force, in the absence of prestress induced by deformation of the

dressing, to cause the dressing leading end to fall into the cylinder groove, is inventive. It is very clear that the Marmin reference, by the Examiner's own admission, teaches away from the reliance solely on the force of gravity, which the Examiner nonetheless asserts is somehow inherently obvious, based on the teachings of Marmin.

Referring specifically to Figs. 8 and 9 of the Marmin reference, and to the discussion thereof, which starts at Column 5, line 48 and which continues through to Column 6, line 47, a new printing plate B is depicted during its mounting process on the cylinder 1. The plate is supported by a support 50 that is movable generally radially toward and away from the surface of the plate 1 by the operation of a lever arm 53. That lever arm 53 is movable by a piston type actuating unit 54, which is depicted as a piston-cylinder unit. A vacuum system at 51' is used to hold the new plate B on the support 50 during its mounting. In the course of such mounting, as recited at Column 5, lines 59-61; "The front region of the new printing plate B is pressed against the outer cylindrical surface of the plate cylinder 1." (Emphasis added.) This results in the creation of an engagement force which acts on the printing plate front edge and "...which makes it dip into the cylinder gap 11 of the plate cylinder 1 as cylinder gap 11 passes." (Emphasis added.) This engagement force, which will force the plate leading end to dip into the cylinder gap, is "...enhanced when the piston-type actuating unit 54 causes the lever 52 to move around the pivot axes 52, thereby effecting an orientation of the support plane 50 in a direction substantially parallel with a line tangent to the outer cylindrical surface of the plate cylinder." (Emphasis added.) This engagement force is increased by the curvature of a region of the plate behind the first edge 28' of the printing plate B.

It is very clear that the Marmin reference teaches away from the method of dressing mounting, as recited in claim 27, as filed and even more clearly as amended. In the method of claim 27, the plate is moved along a line which is tangent to the surface of the printing cylinder. In Marmin, the plate B is held, by a vacuum system 51', against a support 50 while that support

is moved about the pivot axis 52 of the lever 53. This movement effects or changes an orientation of the plate in a direction parallel to the longitudinal line. In other words, in Marmin, the printing plate B, while it is attached by the vacuum system 51' to the support 50, is moved about the pivot axis 52 of the support 50 in response to the movement of the lever arm 53. In contrast, in claim 27, the plate is moved in the direction of the tangent line, not in a direction which changes with respect to that tangent line.

As is clearly depicted in Fig. 8 of Marmin, the leading end of the new plate B is caused to bend or to curve in response to the movement of the support 50 to which it is attached by a vacuum force. By the imparting of such prestresses to the plate leading end, the plate leading end will be forced into the cylinder gap under the application of a rather large force.

In the process of mounting a plate in a dressing, as disclosed in the Marmin device, and as is typically used, the leading edge of the dressing or plate is biased, with a significant force, against the outer surface of the cylinder. As the cylinder rotates, this significant force increases the frictional forces between the plate and the cylinder surface. These frictional forces are detrimental to both the plate end and to the cylinder surface. In the method of mounting the dressing, in accordance with currently amended claim 27, the only forces acting on the plate leading end are those impacted by gravity. The resultant wear on both the plate end and on the surface of the cylinder is thus substantially reduced.

The Marmin reference is typical of the prior art which teaches that a positive force, greater than the force resulting from the weight of the plate end, must be imparted to the plate end to insure that the plate end falls into the cylinder gap. It is an inventive step to go against the teachings of all of the prior art and to rely instead on only a force generated by gravity to cause the plate end to drop into the slot or gap. The advantages in plate end wear reduction and in cylinder surface wear reduction are substantial. As was asserted previously, the applicant does not claim to have invented gravity. However, he utilizes this specific law of nature to solve a problem in a manner that is not readily apparent to those of skill in the art. In the past, those of

such skill, as exemplified by the Marmin invention, believed that it was necessary to impart a positive force to the end of the plate to insure that the plate end was forced into the cylinder gap. In the present invention, in a departure from the teachings of the prior art, the invention has recognized that the force of gravity is sufficient to cause the plate end to fall into the cylinder gap. The method of the present invention, as recited in currently amended claim 27 is not obvious over the teachings of the Marmin reference. In fact, it goes against the teachings of the Marmin reference and is believed to be patentable thereover.

Claims 28-38 all depend from believed allowable, currently amended claim 27. They are thus all believed to be allowable because of that dependence. As indicated previously, in the Marmin reference, the direction of movement of the plate, as it is biased against the cylinder, is generally perpendicular to a tangent line of the cylinder. Thus, claims 28 and 29 are not taught, or suggested by Marmin. With respect to the application of a pushing force to the trailing end of the plate, Marmin discusses the use of a roller to place the trailing end of the plate radially into the cylinder gap. In the subject invention, the force exerted on the trailing end of the plate is a pushing force directed in the length direction of the plate. Allowance of these dependent claims is thus believed to be appropriate.

The several references cited by the Examiner, in the Office Action of August 23, 2007, but not utilized in the rejections of the claims, have been noted. Since they were not applied against the claims, no discussion thereof is believed to be required.

SUMMARY

The title, Substitute Specification and claims of the subject application have been amended. It is believed that the claims now pending in the application are patentable over the prior art cited and relied on. Allowance of the claims, and passage of the application to issue is respectfully requested.

Respectfully submitted,

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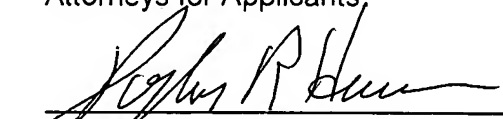
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